US ERA ARCHIVE DOCUMENT

# XL Community Pilot Program

Project Proposal

City of Kokomo, Indiana



Please reply to Bank One Tower address

November 20, 1995

Regulatory Reinvention Pilot Program XL Community Pilot Program FRL-5322-9, Water Docket, Mail Code 4101 U.S. Environmental Protection Agency 401 M Street S.W. Washington, D.C. 20460

Re: City of Kokomo, Indiana Project Proposal

Dear Sir or Madam:

Enclosed is a project proposal by the City of Kokomo, Indiana which is submitted for your consideration as an XL community pilot program.

Very truly yours,

Frank J. Deveau

FJD/gkw

Enclosure

## City of Kokomo

## Project XL Proposal

#### **Background**

The City of Kokomo, Indiana ("Kokomo") is a political subdivision of the State of Indiana. Kokomo's present population is approximately 45,000. In the late 1970s, in fulfillment of its municipal duties, Kokomo entered into agreements with various waste disposal companies to dispose of sludge from the Kokomo POTW. Although the sludge was not a hazardous waste and could have been used as fertilizer, it was disposed of at a hazardous waste landfill. That facility, known as the Four County Landfill (the "Site") filed for RCRA Subtitle C interim status in 1980. The Site was eventually ordered closed by a federal judge in 1989 due to various operational difficulties. The Site is currently the subject of a Remedial Investigation/Feasibility Study ("RI/FS") being conducted by the City and other waste contributors (the "Four County Group"). The RI/FS is being performed in accordance with an Agreed Order entered into by the Four County Group and the Indiana Department of Environmental Management ("IDEM"). The RI/FS Scope of Work and progress reports are submitted to EPA for review and approval. The Four County Group has also agreed to undertake site maintenance activities, including leachate collection and disposal during the RI/FS. The PRPs anticipate that agreement will be reached with IDEM to implement the site remedy upon completion of the RI/FS. Leachate disposal will continue indefinitely in the future as a maintenance cost at the Site, even after the remedy has been completed.

### Proposal Overview

Kokomo is proposing a Project XL initiative which is innovative, cost effective, and which will result in multi-media pollution prevention. Due to the large volume of POTW sludge disposed of at the Site, Kokomo's potential share of costs at the Site is significant. A large portion of such costs is, and will continue to be, leachate disposal costs. Future leachate costs are anticipated to be in excess of \$20 million. Currently, every month thousands of gallons of leachate are trucked several hundred miles to a RCRA permitted underground injection well. Upon arrival, the leachate is injected, untreated, into the ground.

Kokomo believes that this method of leachate disposal is wasteful of tax dollars and potentially harmful to the environment. Kokomo is proposing a Project XL initiative whereby it would treat the leachate at its POTW. Kokomo can already receive the leachate at its POTW pursuant to the permit-by-rule provision of 40 C.F.R. § 270.60(c). However, due to the Mixture Rule and the Derived From Rule, sludge generated at the POTW would be deemed a hazardous waste, even though the sludge would continue to be characteristically non-hazardous. Such a result would put an end to Kokomo's multi-million dollar sludge composting program which is scheduled to begin in the near future. Kokomo's Project XL proposal would eliminate this technically indefensible result and allow treatment of leachate without application of the Mixture and/or Derived From Rules.

The environmental benefits of this project would include (a) the elimination of direct injection of a hazardous waste into the environment, (b) prevention of the release of air pollutants created by trucking the leachate from the Indiana Site to a deep injection well hundreds of miles away in Ohio, and (c) enhancement of the environment by treatment of the

leachate and incorporation of treated solids into Kokomo's POTW sludge recycling/composting program.

#### Alignment with EPA's Project XL Criteria

In the May 23, 1995, *Federal Register*, EPA established eight criteria by which Project XL pilot proposals will be measured. Kokomo believes that its project meets each of these criteria. Each criterion and its application to Kokomo's project is discussed below.

#### 1. Environmental Results

EPA desires that Project XL proposals achieve "cleaner results" environmentally than achievable under current regulation. This is an obvious consequence of Kokomo's proposal since its major feature calls for treatment of a hazardous waste<sup>1</sup> which is currently deposited directly, untreated into the ground. It appears that all of the leachate constituents will be treated by the POTW processes. The technical consultant retained by Kokomo and the Four County Group has concluded that "the organic analytes present in concentrations of concern such as the ketones, alcohols, acetone, tetrahydrafurans, benzoic acid, and phenols would be expected to be amenable to treatment by aerobic and anaerobic degradation which would occur at a treatment facility such as the Kokomo POTW." (Appendix A, p. 8) Moreover, a comparison of the leachate constituents (Appendix A, Table 2) with data from EPA's study entitled *Fate of Priority* 

<sup>&</sup>lt;sup>1</sup>The leachate is a listed F039 hazardous waste even though the levels of contaminants in the leachate are relatively low. 40 C.F.R. § 261.3(a). See Appendix A for a detailed analysis of the leachate. That analysis shows that nearly all of the leachate constituents are low enough to qualify for delisting using health based criteria. The remaining constituents are treatable by the Kokomo activated sludge treatment plant. See Appendix B for discussion regarding treatment of such remaining constituents.

Pollutants in Publicly Owned Treatment Works, Interim Report (EPA 440/1-80-301) (the "EPA Study") reveals that metals and organics such as those included in the leachate will be treated by the Kokomo POTW.<sup>2</sup> Actual data from the Kokomo POTW confirms that the treatment processes remove contaminants of concern. See Exhibit 2 to Appendix B.

Kokomo also proposes that the Derived-From Rule and/or the Mixture Rule be waived as to the leachate introduced into its sewer line at the POTW. If waived, then treated solids in the leachate will be incorporated into Kokomo's sludge recycling or compost program.

#### 2. Cost Savings and Paperwork Reduction

As discussed above, Kokomo's proposal will save taxpayers millions of dollars. In addition, the industries which are members of the Four County Group will also save millions of dollars during the ongoing maintenance of the Site. Such significant savings will provide Kokomo with economic opportunities which will otherwise be lost. Annually, such opportunities, conservatively, could include:

- a. The salaries and benefits of 4.7 additional police officers to patrol the city for one year; or
- b. The salaries and benefits of 4.7 additional fire fighters to protect the safety of citizens for one year; or
- c. The signalization of 6 intersections; or

<sup>&</sup>lt;sup>2</sup>The contaminants included in the EPA Study which are also in the leachate include: cadmium, chromium, copper, nickel, zinc, lead, cyanide, methylene chloride, toluene, butylbenzylphthalate, and phenol. Table 7 to the EPA Study demonstrates that from approximately 50% to 99% of these contaminants will be removed by the Kokomo POTW's treatment processes which include primary settling followed by activated sludge, chlorination, tertiary filtration and aeration. Table 7 is attached as Exhibit 1 to Appendix B.

- d. The planting of 1,808 eight-foot tall three-inch diameter trees by Kokomo's park department; or
- e. The resurfacing of 31,680 feet of two lane city streets with one inch of new asphalt; or
- f. The laying of 3,817 feet of twelve-inch sanitary sewer together with all necessary related structures; or
- g. The cost of providing recycling services for 8,224 houses in the city for one year.

As leachate disposal costs increase in the future, the corresponding level of lost economic opportunities will also increase.

#### 3. Stakeholders' Support

EPA defines *stakeholders* as parties that have a stake in the environmental impacts of the project. EPA recognizes that stakeholders will likely include communities or businesses. The City of Kokomo and the members of the Four County Group fall squarely within these categories of stakeholders. Obviously, the community of Kokomo and the businesses currently paying for part of leachate disposal costs support this proposal.

#### 4. Innovation/Multi-Media Pollution Prevention

EPA has announced that it is "looking for projects that test innovative strategies for achieving environmental results." Multi-media pollution prevention is EPA's preference. Kokomo's proposal is precisely such a multi-media, innovative strategy. Under current law, Kokomo's POTW could receive and treat leachate from the Site. The permit-by-rule provisions of 40 C.F.R. § 270.60(c) allow a POTW under specified conditions to accept hazardous waste for treatment. Nevertheless, due to the Derived-From Rule and/or the Mixture Rule, it is not

feasible for Kokomo to accept the leachate because its POTW sludge would become a hazardous waste. As a further consequence, Kokomo's composting program would no longer be feasible. Kokomo's XL proposal avoids such technical difficulties by, in essence, waiving application of the Derived-From/Mixture Rules.<sup>3</sup>

As discussed above, Kokomo's proposal is a multi-media pollution prevention project.

Pollution prevention is achieved in the following ways:

- a. untreated hazardous waste is no longer released into the environment by underground injection;
- b. air pollution is prevented by significantly reducing truck mileage involved in disposing of the leachate (mileage is reduced from over 200 miles one-way to approximately 40 miles);<sup>4</sup> and
- c. leachate solids are recycled as part of the compost program.

## 5. Transferability

EPA is interested in XL proposals which can conceivably be incorporated into other programs or industries. Kokomo's proposal could be easily transferred to other situations where municipalities and/or industries are voluntarily remediating a site which includes contaminated surface water, groundwater, or leachate. Already many POTWs (including the Kokomo POTW)

<sup>&</sup>lt;sup>3</sup>EPA is authorized pursuant to rules governing delisting, 40 C.F.R. § 260.22, to determine that the Derived From and Mixture Rules do not apply to the leachate and Kokomo's sludge. Alternatively, EPA could determine that the Site leachate or the POTW sludge is not a hazardous waste pursuant to the same authority. *See* Appendix C for a discussion regarding delisting of the sludge.

<sup>&</sup>lt;sup>4</sup>The Four County Group Technical Committee has roughly calculated that more contaminants are being released as air emissions due to the unnecessary truck mileage than is found in the leachate being transported. This anomaly would cease if Kokomo's proposal is approved.

have assisted in such remediations where a sewer line was close enough to the cleanup site to allow the Domestic Sewage Exclusion, 40 C.F.R. § 261.4(a)(2)(ii), to be utilized. It makes little sense to exhaust limited resources in building wastewater treatment plants at hazardous waste cleanup sites when equivalent treatment plants have already been constructed in nearby communities.

### 6. Feasibility

Kokomo's proposal is technically and administratively feasible. Technically, an independent environmental consulting firm has already performed a treatability study. A copy of that study is included as Appendix A. The study concluded that Kokomo's POTW would have no difficulty safely and effectively treating the leachate.<sup>5</sup>

The project would be administered in accordance with Kokomo's industrial pretreatment program which is conducted in accordance with the Clean Water Act. The Four County Group would be issued a Discharge Authorization by Kokomo's POTW. The Discharge Authorization would define acceptable pollutant loading and identify parameters and frequency of testing.

Finally, shipments of leachate to the POTW would continue to be manifested and RCRA Annual Reports would be submitted by the POTW to IDEM.

<sup>&</sup>lt;sup>5</sup>EPA has already recognized that the POTW is a quality operation by issuing it National Awards for outstanding operations and maintenance in 1984 and 1986.

### 7. Monitoring, Reporting and Evaluation

Monitoring will be easily achieved since leachate will be analyzed, manifested and reported as described in the preceding paragraph. Such information will be available on an annual basis to the stakeholders.

#### 8. Shifting of Risk Burden

We believe that the project is consistent with Executive Order 12898 on Environmental Justice. We believe that worker safety will be fully protected and that no one will be subjected to unjust or disproportionate environmental impacts.

#### Implementation of Proposed Project XL Initiative

Kokomo would like to begin implementation of its proposal in January of 1996. Two factors suggest that this would be an ideal time to begin the project. A record of decision as to the first operable unit of the site remedy is anticipated early in 1996. The XL proposal could be incorporated into the record of decision thereby providing EPA with a regulatory means of authorizing the project. In fact, the Agreed Order provides that a focused feasibility study may be performed regarding the leachate and its disposal. Thus, a mechanism is already in place whereby EPA could authorize Kokomo's proposal.

The second factor is more practical. The Four County Group's contract for leachate disposal will be renewed early in 1996, unless Kokomo's XL proposal is approved. If the contract is renewed, it may be another twelve months before the Four County Group is in a position to utilize the POTW for leachate treatment.

### Conclusion

Kokomo is pleased to submit this proposal to perform an XL project. We believe that the environment, the citizens of Kokomo, and industry will all benefit from implementing this common sense proposal. Moreover, EPA will be able to demonstrate that it can be innovative, and it will have a practical answer to critics who claim that the Agency is inflexible.